

Gabriel Carvalho Silva

Brazilian, 24 years old

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Summary

Skilled in Java, Kotlin, Python, and modern frameworks. Known for proactive collaboration, clear communication, and a growth mindset. Interested in growing into a software architect role, building scalable and robust solutions guided by context needs.

Skills

- **Programming Languages:** Java, Kotlin, Python, C/C++, SQL, Shell
- **Frameworks and Tools:** Spring Boot, Kafka, FastAPI, Flask, PostgreSQL, Git, Docker, HTML, CSS, basic JavaScript, basic Golang, basic C#
- **Architectural Concepts:** Microservices, Domain-Driven Design, Event-Driven Architectures
- **Languages:** English (C2), Spanish (A2), , German (A1), Portuguese (native)

Experience

- **Associate Application Engineer** Oct 2024 – Present
Foretellix Remote

Customer-facing engineering and requirements analysis (including pre-sales and post-sales) of Foretellix Open-Scenario2.0 based ADAS/AV VnV solution.

Focused on providing custom infrastructure for client data integration for ADAS applications (AEB, ACC, ALKS, and more) and AV applications (Robot Taxi, Hub to Hub trucks, Mining, warehouses, and more) using multiple paradigms (SIL, HIL, real recorded data).

Integrating industry-standard platforms (such as Carla) within hyper-scale cloud solutions (such as AWS).

Collaborating with and serving players such as Volvo, Nvidia, Denso, Valeo, and more in North America , EU , and APAC in a hyper-growth environment

Technology Stack: ASAM OpenScenario 2, C++, Python, Shell, AWS

- **Data Engineer Intern** May 2024 – Oct 2024
IEA - USP RP Ribeirão Preto, Brazil

Refactoring database design, reducing query times from over 5 minute to under a couple of seconds.

Building custom dashboards for educational data visualization and insights.

Setting up on-premises service with Docker and implementing basic CI/CD pipelines to improve workflow efficiency.

Technology Stack: Linux, Shell, Python, R, PostgreSQL, Shiny, JavaScript, HTML, CSS, Leaflet, Plotly

- **Data Engineer Intern** Aug 2023 – Feb 2024
BRICS - TU Braunschweig Braunschweig, Germany

Developing a pipeline abstraction framework to help data scientists focus on domain analysis rather than programming details, using Pandas and other Python libraries through the creation of a domain-specific language.

Technology Stack: Python

- **Full Stack Intern** Aug 2023 – Feb 2024
PLRI - TU Braunschweig Braunschweig, Germany

Developing a full-stack application in Python (FastAPI) and PostgreSQL with both a web front-end in Vue and an Android app for AI-aided diagnosis of horseshoe images.

Technology Stack: Python, PostgreSQL, JavaScript, Vue, FastAPI, SQLAlchemy

- **Software Engineer Intern** Feb 2021 – Jan 2023
iFood - Financial Services Tribe Remote
Implementing an error mapping library by creating a domain-specific language (DSL) for better error handling across microservices.
Developing and refactoring microservices for enabling high scale payment services in the platform.
Contributing to architectural discussions and implemented solutions using Kafka for high throughput services.
Technology Stack: Kotlin, Java, Golang, Spring Boot, Kafka, AWS, Hibernate, Flyway, Maven, Gradle, PostgreSQL, ScyllaDB, Redis

Education

- **Universidade de São Paulo (USP)** Expected conclusion by end of 2025
Bachelor of Computer Science - Focus on distributed systems, software engineering, and IoT Mar 2020 – Present
- **Technische Universität Braunschweig** Mar 2023 – Mar 2024
Exchange Student Germany

Leadership & Contributions

- **Bachelor Thesis** Mar 2025 – December 2025 (ongoing)
USP - Universidade de Sao Paulo Hybrid
An IoT Smart Scale proof of concept for Smart Homes.
Developing a scalable architecture PoC for an IoT smart scale solution including a MQTT broker, API and worker services, a NoSQL database and face recognition solution
Technology Stack: ESP32, Raspberry Pi, Mosquitto, Golang, ScyllaDB, Docker, Avro
- **Computer Science Academic League** May 2024 – Present
Founder and active member
- **Hypatia** Since Mar 2025
Algebra tutor
- **Octobit Junior** Since Jul 2024
Prior Head of Projects; current support counselor
- **GEMPRO (Programming Marathon Study Group)** 2020 – 2021
Co-Founder
- **Computer Science Week** 2020 – 2021
President and partner relations
- **CRel (MUN Club)** 2015 – 2017
Head of Academic Activities
- **Fermat Project** 2017
Informatics tutor
- **Tutouros Project** 2015
Mathematics tutor

Certifications

- TOEFL iBT score: 113/120
- High School Programming Competition: 2nd place
- Model United Nations: Best Delegate, 3 Honorable Mentions, 1 Oral Mention

References

Mr. Cristiano Hahn cristianohahn.contato@gmail.com Senior Software Engineer at iFood